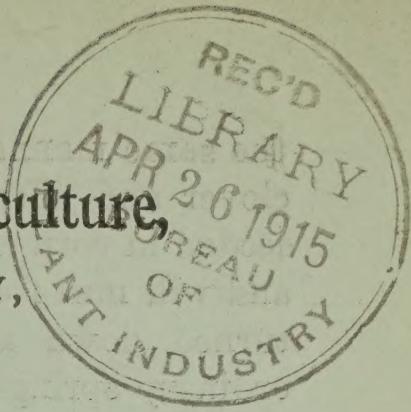


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United States Department of Agriculture,

BUREAU OF PLANT INDUSTRY,

Forage-Crop Investigations,

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YELLOW TREFOIL OR BLACK MEDIC (*Medicago Lupulina*).

Yellow trefoil is often called black medic from the fact that its seed pods when ripe are black in color. The flowers of this plant are yellow and are borne in small clusters. Yellow trefoil is a native of Europe and Asia, but has been introduced into the United States and now grows wild to a greater or less extent all over the more humid parts of the country, especially in the Eastern and Southern States. It has never been utilized extensively as a forage or green-manure crop, but preliminary experiments make it evident that it can be used as a substitute for several of the clovers which make their growth during the fall, winter, and spring months.

UTILIZATION.

Yellow trefoil is somewhat similar in nature to crimson clover, bur clover, and some of the native wild clovers, in that it makes its growth in the autumn, winter, and early spring, at a time when the land is not ordinarily occupied by the summer-grown money crop of the farm. In addition to supplying the soil with humus and available nitrogen for the use of succeeding crops, the green plants form an excellent cover for the otherwise bare ground during the winter, thus retarding the gullying action and erosion of the winter rains. Considerable food material is also taken up by these plants and held in a form which is not readily leached out by the rain, as would happen were these materials present in soluble form in the surface. When turned under for soil improvement, a marked effect can usually be noted in the yields of the succeeding crops. Yellow trefoil is better adapted for pasturage than for hay, owing to its tendency to lodge, even when grown in a comparatively thick stand. All kinds of stock do well on yellow-trefoil pasture, since it furnishes very nutritious grazing. Perhaps the ideal utilization of this plant in the Southern States is to seed it on Bermuda-grass pastures to extend the pasturing season. The yellow trefoil makes its growth during the fall, winter, and spring months, and thus furnishes pasturage at a time when the Bermuda grass is out of commission by reason of the cool weather. This combination makes a practically continuous pasture throughout the year in sections not too far north for winter growth on the part of the winter-growing legumes. It is utilized in this way in much

the same manner as bur clover. It is a hardier plant than crimson clover and offers some promise of furnishing a crop which can be seeded in corn at the last working as far north as northern Indiana and will make enough growth during the fall and early spring to be turned down as a soil-improving crop in time for planting the ordinary spring-seeded crops, such as corn.

SEEDING AND PREPARATION OF THE GROUND.

Yellow trefoil when seeded on Bermuda-grass sod can be either disked or harrowed in during August or September without previous treatment of the soil. When seeded in a standing cultivated crop in the late summer, the previous cultivations given the crop in which it is seeded usually constitute all the preparation of the ground that is necessary. The seed should be sown at the rate of 8 to 10 pounds per acre if on Bermuda grass, and at the rate of 15 pounds per acre when seeded alone or in such a crop as corn at the last cultivation. Being a legume, yellow trefoil is dependent upon nitrogen-gathering bacteria for its most successful growth, and if this crop has not recently been successfully grown in a field, inoculation in some form should be provided. Soil from around the roots of yellow trefoil, alfalfa, bur clover, or sweet clover will prove effective in furnishing the necessary inoculation. The soil should be mixed with the seed, pound for pound. Since direct sunshine is injurious to the inoculation, the inoculated soil should be seeded on a cloudy day or after sundown and harrowed in before the sun has had opportunity to shine upon it. If this is impracticable, the one doing the seeding can walk just behind or at the side of the harrow and sow the seed the width of the harrow immediately behind the horses and in front of the harrow. If inoculating soil is not locally available, pure cultures may be obtained from the United States Department of Agriculture.

SEED PRODUCTION.

Seed production has never been attempted on any large scale in this country, but the wide adaptability of this plant makes it desirable that home-grown seed be produced wherever possible. By mowing the plants when in full seed and flailing out on a canvas, a fair quantity of seed can ordinarily be obtained at a slight expenditure of time and labor. By removing or reducing the number of live stock on a Bermuda-grass and yellow-trefoil pasture when the plants bloom, they will ordinarily be able to make enough seed before they die to reseed the pasture the following autumn.

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